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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,497

10/07/2004

Shunji Hayashi

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EXAMINER

BADR, HAMID R

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,497	<b>Applicant(s)</b> HAYASHI ET AL.	
	<b>Examiner</b> Hamid R. Badr	<b>Art Unit</b> 1709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/07/2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (EP 1 112 692 A1) in view of Mäyrä-Mäkinen et al. (US 5908646)

#### Regarding Claim 1

3. Kimura et al. teach the use of *Lactobacillus gasseri*, with a disinfection property against *Helicobacter pylori*, in foods [001]. They are silent regarding the use of this organisms in cheese.

#### Regarding Claim 2

4. Kimura et al. disclose that their *Lactobacillus gasseri* is highly gastric acid resistant [0010].

#### Regarding Claim 3

5. Kimura et al. explain the use of *Lactobacillus gasseri* OLL 2716 (FERM BP-6999) in foods (Abstract and [0013, 0014, 0015]).

#### Regarding Claim 4

6. Kimura et al. characterize their *Lactobacillus gasseri* OLL 2716 to have high survival when applied to food products (page 3, lines 20-21). They further disclose the

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storage temperature of 10°C and viable count of  $10^7$  cfu/ml of yogurt after 2 weeks (page 8, lines 5-7). Yogurt is a high water activity ( $a_w$ ) food product compared to semi-hard or hard cheeses. The shelf life will be extended at lower  $a_w$ .

Regarding Claim 5

7. Kimura et al. discuss the use of *Lactobacillus gasseri* in foods, in food components and in combination with other foods [0017].

Regarding Claim 6

8. The cheese making process is well known in the art.

Regarding Claim 7

9. Incubation of the molded and pressed curd will be an extension of the incubation period for a starter culture. This is performed in order to increase the number of viable bacteria in the curd.

Regarding Claim 8

10. *Lactobacillus gasseri* is a mesophilic organism. Kimura et al. demonstrate that growth is impaired at 15°C (page 3, B-Physiological properties). It is obvious to incubate a microorganism in a range suitable for growth and proliferation.

Regarding Claim 9 and 10

11. The use of *Lactobacillus gasseri* in foods and pharmaceuticals is discussed by Kimura et al. They do not teach the use of this organism in cheese.

12. The incorporation of lactobacilli, for their antagonistic properties into cheese, is explored by Mäyrä-Mäkinen et al. They disclose an anticlostridial *Lactobacillus rhamnosus*, which can be used to prevent problems caused by clostridia in a number of

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different fields (Col. 5, lines 39-42). They further mention that it is possible to employ strains of *Lactobacillus rhamnosus* for medical purposes (Col. 5, lines 47-48).

Incorporation of lactobacilli into Swiss and Edam cheeses are discussed in detail (Example 3 and 4).

13. Knowing the details of anti-Helicobacter properties of *Lactobacillus gasseri* OLL 2176 and possibility of imbedding it in a food matrix such as cheese, it would have been obvious, at the time the invention was made, to propose making a cheese containing *Lactobacillus gasseri* OLL 2176, by one of ordinary skill in the art, for its anti-Helicobacter properties.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hamid R. Badr whose telephone number is 5172703455. The examiner can normally be reached on M-F 7:30-5:00 ET (First Friday Off).

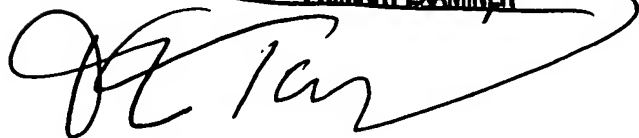
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 5712721515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr  
Examiner  
Art Unit 1709

**D. LAWRENCE TARAZANO**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'DL Tar', is written over a horizontal line. The signature is fluid and cursive.